

Sec.	
3103.	Ground subsidence.
3104.	3D elevation program.

(G) the Republic of Palau; and  
 (H) the United States Virgin Islands.  
 (Pub. L. 116-323, §2, Jan. 5, 2021, 134 Stat. 5075.)

### § 3101. Definitions

In this chapter:

#### (1) 3D

The term “3D” means 3-dimensional.

#### (2) 3D elevation data

##### (A) In general

The term “3D elevation data” means 3D, high-resolution data obtained using LiDAR, IfSAR, or other methods over the United States (including territories).

##### (B) Inclusions

The term “3D elevation data” includes terrestrial and bathymetric elevation data.

#### (3) 3D elevation program

The term “3D Elevation Program” means the 3D Elevation Program established under section 3104(a) of this title.

#### (4) IfSAR

The term “IfSAR” means interferometric synthetic aperture radar.

#### (5) Indian tribe

The term “Indian tribe” has the meaning given the term in section 5304 of title 25.

#### (6) Lahar

The term “lahar” means a large debris flow of mostly volcanic material that is—

- (A) often fast-moving; and
- (B) a hazard in watersheds downstream of volcanic peaks.

#### (7) LiDAR

The term “LiDAR” means light detection and ranging.

#### (8) Secretary

The term “Secretary” means the Secretary of the Interior, acting through the Director of the United States Geological Survey.

#### (9) State

The term “State” means—

- (A) a State; and
- (B) the District of Columbia.

#### (10) State office

The term “State office” means any unit of State government that handles the identification, mapping, assessment, and research of landslide hazards or responding to landslide events, including—

- (A) a State geological survey office;
- (B) a State department of emergency response; and
- (C) a State department of transportation.

#### (11) Territory

The term “territory” means—

- (A) the Commonwealth of Puerto Rico;
- (B) Guam;
- (C) American Samoa;
- (D) the Commonwealth of the Northern Mariana Islands;
- (E) the Federated States of Micronesia;
- (F) the Republic of the Marshall Islands;

(G) the Republic of Palau; and  
 (H) the United States Virgin Islands.

### Statutory Notes and Related Subsidiaries

#### SHORT TITLE

Pub. L. 116-323, §1, Jan. 5, 2021, 134 Stat. 5075, provided that: “This Act [enacting this chapter] may be cited as the ‘National Landslide Preparedness Act.’”

### § 3102. National Landslide Hazards Reduction Program

#### (a) Establishment

The Secretary shall establish a program, to be known as the “National Landslide Hazards Reduction Program” (referred to in this section as the “program”)—

- (1) to identify and understand landslide hazards and risks;
- (2) to reduce losses from landslides;
- (3) to protect communities at risk of landslide hazards; and
- (4) to help improve communication and emergency preparedness, including by coordinating with communities and entities responsible for infrastructure that are at risk of landslide hazards.

#### (b) Description of program

##### (1) Program activities

The Secretary, in coordination with the Interagency Coordinating Committee on Landslide Hazards established by subsection (c)(1) (referred to in this section as the “Committee”) and in coordination with existing activities of the United States Geological Survey and other Federal agencies, shall—

- (A) identify, map, assess, and research landslide hazards;
- (B) respond to landslide events; and
- (C) in coordination with State offices, units of local government, territories, and Indian tribes—

(i) establish working groups with State offices, units of local government, territories, and Indian tribes to identify regional and local priorities for researching, identifying, mapping, and assessing landslide hazards; and

(ii) develop and implement landslide hazard guidelines for—

- (I) geologists;
- (II) geological and geotechnical engineers;
- (III) emergency management personnel; and
- (IV) land use and other decision-makers.

##### (2) National strategy

Not later than 1 year after January 5, 2021, and every 5 years thereafter, the Secretary, in coordination with the Committee, shall develop and publish a national strategy for landslide hazards, risk reduction, and response in the United States (including territories), which shall include—

- (A) goals and priorities for the program;
- (B) priorities for data acquisition, research, communications, and risk manage-

ment on landslides and landslide hazards across relevant Federal agencies; and

(C) a detailed interagency plan, which shall take into consideration national disaster preparedness, response, and recovery frameworks, to carry out the national strategy, including details about the programs, projects, and budgets that will be used to implement the national strategy.

**(3) National landslide hazards database**

In carrying out the program, the Secretary, in coordination with State offices, units of local government, territories, and Indian tribes, shall develop and maintain a publicly accessible national landslide hazard and risk inventory database to compile, maintain, standardize, and evaluate data regarding—

- (A) landslide hazards and risks;
- (B) the impact of landslides on—
  - (i) health and safety;
  - (ii) the economy and infrastructure; and
  - (iii) the environment;
- (C) landslide hazard stabilization; and
- (D) reduction of losses from landslides.

**(4) Landslide hazard and risk preparedness for communities**

In carrying out the program, the Secretary, in coordination with the Secretary of the Army, the Secretary of Commerce, the Secretary of Homeland Security, the Secretary of Transportation, and the heads of other relevant Federal agencies, and in consultation with State offices, units of local government, territories, and Indian tribes, shall develop and disseminate—

- (A) landslide planning and risk reduction guidance, guidelines, maps, tools, and training materials to help inform State, territorial, local, and Tribal governments and decisionmakers with respect to—
  - (i) the use and implementation of landslide hazard assessments;
  - (ii) the applied use of the database developed under paragraph (3);
  - (iii) reducing losses from landslides; and
  - (iv) resources available for communities working to improve landslide hazard preparedness; and
- (B) landslide preparedness curricula and training modules for—
  - (i) State, territorial, local, and Tribal officials;
  - (ii) Federal, State, territorial, local, and Tribal emergency managers; and
  - (iii) the National Guard.

**(5) Debris flow early warning system**

In carrying out the program, the Secretary, in coordination with the Secretary of Commerce and the Secretary of Homeland Security, shall expand the early warning system for debris flow by—

- (A) expanding the early warning system for post-wildfire debris flow to include recently burned areas across the western United States;
- (B) developing procedures with State, territorial, local, and Tribal governments to monitor stormwater drainage in areas with high debris flow risk; and

(C) identifying high-risk debris flow areas, such as recently burned land and potential lahar hazard areas.

**(6) Emergency response activities**

In carrying out the program, the Secretary, in coordination with the Secretary of Commerce, the Secretary of Homeland Security, the heads of other relevant Federal agencies, States offices, units of local government, territories, and Indian tribes, shall establish and support emergency response procedures for the rapid deployment of Federal scientists, equipment, and services to areas impacted by a significant landslide event—

- (A) to support emergency response efforts and improve the safety of emergency responders;
- (B) to improve data collection; and
- (C) to conduct research to advance the understanding of the causes, impacts, and reduction of landslide hazards and risks.

**(c) Interagency Coordinating Committee on Landslide Hazards**

**(1) In general**

There is established a committee, to be known as the ‘Interagency Coordinating Committee on Landslide Hazards’.

**(2) Membership**

The Committee shall be composed of the following members (or their designees):

- (A) The Secretary, who shall serve as Chairperson of the Committee.
- (B) The Secretary of Agriculture.
- (C) The Secretary of the Army.
- (D) The Secretary of Commerce.
- (E) The Secretary of Homeland Security.
- (F) The Secretary of Transportation.
- (G) The Director of the National Science Foundation.
- (H) The Director of the Office of Science and Technology Policy.
- (I) The Director of the Office of Management and Budget.

**(3) Meetings**

The Committee shall meet at the call of the Chairperson.

**(4) Purpose and duties**

The Committee shall—

- (A) advise and oversee the program;
- (B) facilitate communication and coordination across Federal agencies in the planning, management, budgeting, and execution of landslide activities; and
- (C) support the development and execution of the national strategy under subsection (b)(2), including by—
  - (i) supporting the development of national goals and priorities for the national strategy;
  - (ii) articulating Federal agency roles, responsibilities, and resources for carrying out the national strategy; and
  - (iii) overseeing the implementation of the national strategy.

**(d) Advisory Committee**

**(1) In general**

The Secretary shall establish an advisory committee, to be known as the ‘Advisory

Committee on Landslides” (referred to in this subsection as the “Advisory Committee”).

**(2) Membership**

The Advisory Committee shall be composed of not fewer than 11 members—

(A) of whom none may be an individual described in any of subparagraphs (A) through (F) of section 7342(a)(1) of title 5; and

(B) who shall be representatives of—

(i) States, including State geological organizations;

(ii) territories, including territorial geological organizations;

(iii) Indian tribes, including Tribal geological organizations;

(iv) research institutions and institutions of higher education that are qualified—

(I) to provide advice regarding landslide hazard and risk reduction; and

(II) to represent related scientific, architectural, engineering, and planning disciplines;

(v) industry standards development organizations; and

(vi) State, territorial, local, and Tribal emergency management agencies.

**(3) Recommendations**

**(A) In general**

The Advisory Committee shall submit to the Committee recommendations for the implementation of the program, including recommendations regarding—

(i) landslide hazard and risk reduction and planning;

(ii) tools for communities;

(iii) research; and

(iv) such other topics as the Advisory Committee determines appropriate.

**(B) Consideration**

The Secretary and the agency heads described in subparagraphs (B) through (I) of subsection (c)(2) shall take into consideration any recommendation of the Advisory Committee submitted under subparagraph (A).

**(e) Grant programs**

**(1) Cooperative landslide hazard mapping and assessment program**

**(A) In general**

Subject to appropriations, the Secretary may—

(i) provide grants, on a competitive basis, to State, territorial, local, and Tribal governments to research, map, assess, and collect data on landslide hazards within the jurisdictions of those governments; and

(ii) accept and use funds received from other Federal and non-Federal partners to advance the purposes of the program.

**(B) Priority**

**(i) In general**

The Secretary shall consult annually with the Committee, States, units of local government, territories, and Indian tribes

to establish priorities for the grant program under this paragraph.

**(ii) Funding prioritization**

In providing grants under this paragraph, the Secretary shall give priority to projects—

(I) that will achieve the greatest landslide hazard and risk reduction;

(II) that reflect the goals and priorities of the national strategy established under subsection (b)(2)(A);

(III) not less than 50 percent of the total cost of which is matched by non-Federal sources; and

(IV) that include acquisition of enhanced elevation data consistent with the 3D Elevation Program.

**(C) Requirement**

If the Secretary elects to provide grants under subparagraph (A)(i), the Secretary shall publish on a publicly available website a description of—

(i) the grants; and

(ii) the findings made from those grants.

**(2) National landslide research grants**

**(A) In general**

To advance the goals and priorities of the national strategy established under subsection (b)(2)(A), subject to appropriations, the Director of the National Science Foundation (referred to in this paragraph as the “Director”) may provide grants to eligible entities for landslide research, including research on—

(i) the causes, mechanisms, triggers, hydrology, and geology of landslides;

(ii) ways to reduce landslide hazards and risks to minimize loss of life and property, including landslide hazard and risk communication, perception, decisionmaking, tools, and technologies; and

(iii) other goals and priorities of the national strategy established under subsection (b)(2)(A).

**(B) Eligible entities**

The Director shall determine whether an entity is eligible to receive a grant under this paragraph.

**(C) Requirements**

In providing grants under this paragraph, the Director shall—

(i) ensure that the grants are provided on a competitive basis;

(ii) consider grant applications submitted by eligible entities that have developed the application in partnership with 1 or more State geological surveys; and

(iii) publish on a publicly available website a description of—

(I) the grants; and

(II) the findings made from those grants.

**(f) Biennial report**

Through calendar year 2030, the Secretary shall submit to Congress a biennial report, including a description of, with respect to the 2-calendar-year period preceding the date of the report—

(1) the goals and accomplishments of the Committee in carrying out the national strategy developed under subsection (b)(2);

(2) the results of the activities of the Committee under this section; and

(3) the extent to which any recommendations of the Advisory Committee under subsection (d)(3)(A) have been implemented.

**(g) Significant events**

Not later than 1 year after a significant landslide event in the United States (including territories) occurs, the Secretary shall publish on a publicly available website—

(1) a description of the landslide event and the implications of the event on communities, including life and property;

(2) recommendations on how the identification of the landslide risk could have been improved prior to the event;

(3) a description of the effectiveness of any warning and risk communication, including the dissemination of warnings by State, territorial, local, and Tribal partners in the affected area;

(4) recommendations to improve risk identification, reduction, and communication to landowners and units of local government;

(5) recommendations to improve landslide hazard preparedness and emergency response activities under this section; and

(6) such other findings as the Secretary determines appropriate.

**(h) Funding**

For each of fiscal years 2021 through 2024—

(1) there is authorized to be appropriated to the United States Geological Survey, \$25,000,000 to carry out this section;

(2) there is authorized to be appropriated to the National Science Foundation, \$11,000,000 to carry out this section; and

(3) there is authorized to be appropriated to the National Oceanic and Atmospheric Administration, \$1,000,000 to carry out this section.

**(i) Derivation of funds**

Funds to carry out the activities under this section shall be derived from amounts authorized to be appropriated that are enacted after the date of the enactment of this section.

(Pub. L. 116–323, § 3, Jan. 5, 2021, 134 Stat. 5076.)

**§ 3103. Ground subsidence**

As the Secretary determines to be appropriate and subject to appropriations, the Secretary, through existing programs, shall advance the identification, mapping, research, and monitoring of subsidence and groundwater resource accounting, particularly in areas affected by drought.

(Pub. L. 116–323, § 4, Jan. 5, 2021, 134 Stat. 5081.)

**§ 3104. 3D elevation program**

**(a) Establishment of 3D Elevation Program**

**(1) In general**

The Secretary shall establish a program, to be known as the “3D Elevation Program”—

(A) to provide 3D elevation data coverage for the United States;

(B) to coordinate and facilitate the collection, dissemination, and use of 3D elevation data among Federal departments and agencies and non-Federal entities;

(C) to produce standard, publicly accessible 3D elevation data products for the United States; and

(D) to promote the collection, dissemination, and use of 3D elevation data among Federal, State, local, and Tribal governments, communities, institutions of higher education, and the private sector through—

(i) cooperative agreements;

(ii) the development and maintenance of spatial data infrastructure to provide quality control and deliver to the public 3D elevation data products;

(iii) in coordination with the 3D Elevation Federal Interagency Coordinating Committee established under subsection (b), States, and industry and standards bodies, the development of standards and guidelines for 3D elevation data acquisition to increase accessibility to 3D elevation data in a standard, easy-to-use format; and

(iv) the identification, assessment, and adoption of emerging technologies to improve the accuracy and efficiency of the 3D Elevation Program.

**(2) Management**

**(A) In general**

The Secretary shall manage the 3D Elevation Program—

(i) to ensure efficiency with respect to related activities of the Department of the Interior and other participating Federal departments and agencies; and

(ii) to meet the needs of Department of the Interior programs, stakeholders, and the public.

**(B) Other Federal departments and agencies**

The head of each Federal department and agency involved in the acquisition, production, distribution, or application of 3D elevation data shall—

(i) coordinate with the 3D Elevation Federal Interagency Coordinating Committee established under subsection (b) to acquire additional, enhanced 3D elevation data;

(ii) submit to the Secretary a description of priority areas of interest for 3D elevation data collection for use in providing grants and cooperative agreements under subsection (d);

(iii) implement policies and procedures for data acquisition and sharing that are consistent with standards and guidelines developed under the 3D Elevation Program;

(iv) participate in, and share the results and benefits of, the 3D Elevation Program, in accordance with standards and guidelines developed under the 3D Elevation Program; and

(v) ensure that any 3D elevation data acquired with Federal grant funding—

(I) meets 3D Elevation Program standards; and